

The Influence of Technology on the Use of and Access to Geographic Names

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Content

- Maps and names of places
- Two problems: Names and search
- Third revolution
- To infinity and beyond



Early Map
Catal Huyuk (Southeast Turkey) ~6200 BC

16th Century



Two Problems

Names and Search



Hartl, Martin, 1805

DICTIONARY OF ALASKA PLACE NAMES

By Donald J. Orth

GEOLOGICAL SURVEY PROFESSIONAL PAPER 567

The principal names listed conform with nomenclature established through decisions of the U.S. Board on Geographic Names or are recognized by the Board as standard names for use on Federal maps and other publications



UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1967

Bering Sea: *sea*, N part of Pacific Ocean, between Siberia on W and Alaska on E, enclosed by Aleutian Is. on S and Komandorski Is. on SW, and connected by Bering Strait with Chukchi Sea on N; 60° N, 175° E; *BGN 1951*; *Var.* Aleutian Sea, Behring Sea, Eastern Ocean, Kamchatka Sea, Mer d'Aléoutienne, Mer d'Aliaska, Mer d'Ormante, Sea of Alaska, Sea of Kamchatka, Sea of Otters (Bobrovoy), Sleepy Sea.

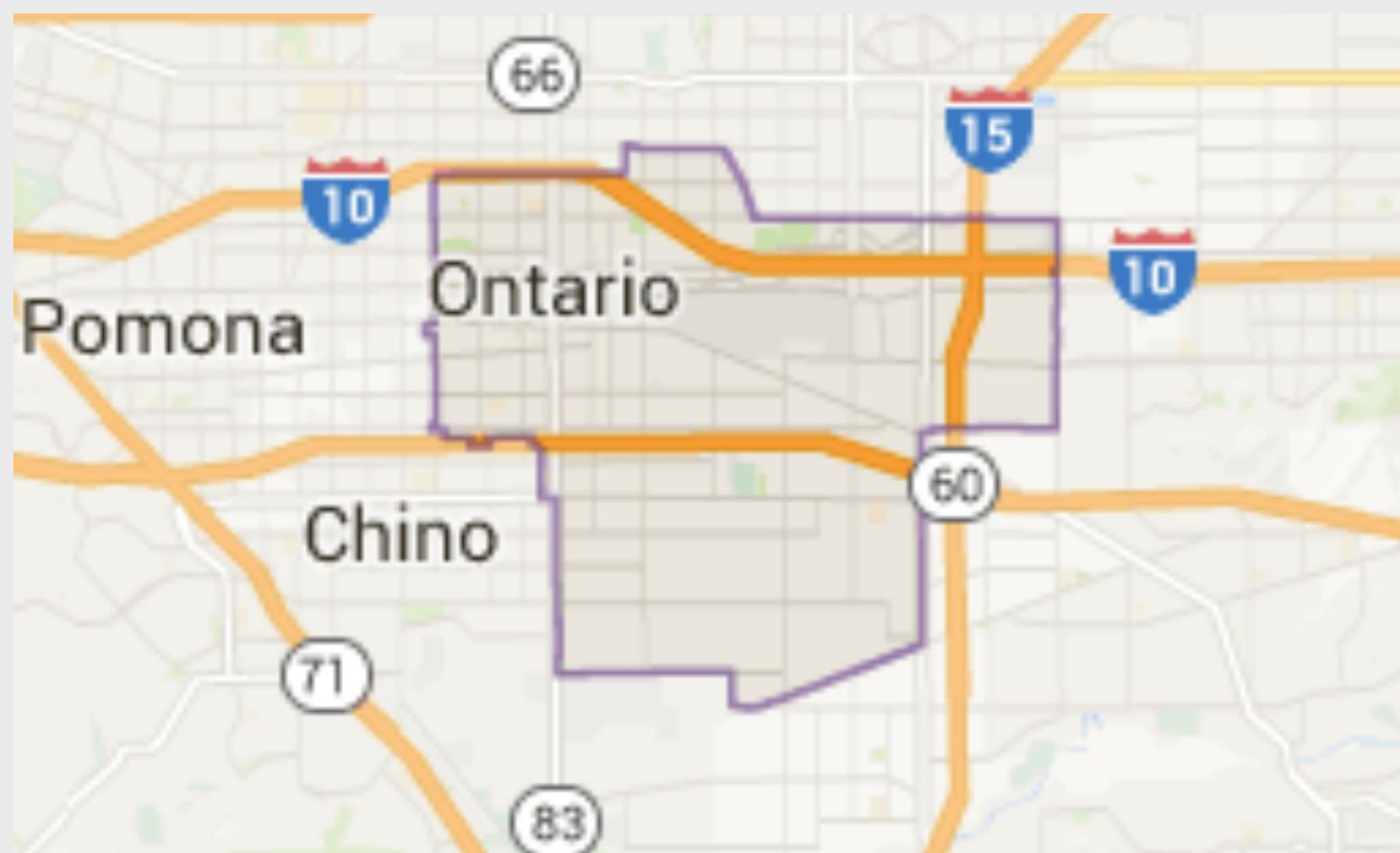
Named in 1822 by Capt. V. M. Golovnin, IRN, for Comdr. Ivan Ivanovich (Vitus) Bering, IRN, who was selected by Peter the Great, Tsar of Russia "for the work of exploring eastern Asia and western America * * *. Before 1822 it was for the most part called the Sea of Kamchatka * * *. On a very old map it is called the Mer d'Ormante and on another the Sleepy sea * * *." (Baker, 1906, p. 129).

Behring Glacier: *glacier*, see Bering Glacier.

Behring Sea: *sea*, see Bering Sea.

Behring Strait: *water passage*, see Bering Strait.

Where is Ontario?



Ontario



What is the nearest lake from
my current location that I can go
fishing?

Techniques to:

- agree on geographic names
- make those names accessible to the public

Agreement via Controlled Vocabularies (Terms + Community)

List of
Terms



Dictionary



Tables and
Relations

From

UNITED STATES

G
105
.048

BOARD ON GEOGRAPHIC NAMES.

BULLETIN No. 1.

ISSUED DECEMBER 31, 1890.



CITY OF WASHINGTON:
PUBLISHED BY THE SMITHSONIAN INSTITUTION.
1890.

265-

UNITED STATES

BOARD ON GEOGRAPHIC NAMES.

BULLETIN No. 2.

ISSUED MAY 25, 1891.



FIRST REPORT

OF THE

39743

UNITED STATES *Geographic Board*

BOARD ON GEOGRAPHIC NAMES.

1890-1891.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.

APPENDIX A.

LIST OF DECISIONS.

In the following lists the adopted forms are printed in heavy face lower case type, certain discarded forms are entered in the same alphabetical list and printed in *italics*. In each case after the discarded form the adopted form is added in parentheses for ready reference.

IN THE UNITED STATES.

Abagadasset Point. Kennebec River,	<i>Akoun Island.</i> (Akun.)
Maine.	<i>Akoutan Island.</i> (Akutan.)
<i>Abagadusset Point.</i> (Abagadasset.)	Akun Island. Alaska.
Aboit. Allen County, Indiana.	Akutan Island. Alaska.
<i>Aboite.</i> (Aboit.)	Alamota. Lane County, Kansas.
Absaroka Range. Wyoming and Mon-	Alapaha. Berrien County, Georgia.

44

NAMES IN FOREIGN COUNTRIES.

<i>Balouchistan.</i> (Baluchistan.)	<i>Carriçal.</i> (Karikal.)
Baluchistan. India.	<i>Casamance.</i> (Kasamanze.)
Barbados Island. In West Indies.	<i>Casamanza.</i> (Kasamanze.)
<i>Barbadoes Island.</i> (Barbados.)	<i>Casamanze.</i> (Kasamanze.)
<i>Bayreuth.</i> (Baireuth.)	<i>Cashmere.</i> (Kashmir.)

APPENDIX B.

DECISIONS OF THE BOARD.

LIST OF COUNTIES IN THE UNITED STATES.

ALABAMA.	Marengo.	Clark.	Pike.	Monterey.
Autauga.	Marion.	Clay.	Poinsett.	Napa.
Baldwin.	Marshall.	Cleburne.	Polk.	Nevada.
Barbour.	Mobile.	Cleveland.	Pope.	Orange.
Bibb.	Monroe.	Columbia.	Prairie.	Placer.
Blount.	Montgomery.	Conway.	Pulaski.	Plumas.
	<i>Monroe.</i>	<i>Cherokee.</i>	<i>San Diego.</i>	<i>Sacramento.</i>

OFFICIAL GAZETTEER

OF

RHODE ISLAND

*Compiled by the Rhode Island Geographic Board
In Cooperation with
the United States Geographic Board*

1932

Core Elements Dictionary Style

Almy: **rock**, in **Tiverton, Newport County**, south of **Fogland Point**, in **Sakonnet River**, near **lat. 41° 33' N., long. 71° 13' W.**

Name

Class or
Type

Location

Containment

GAZETTEER TO MAPS OF THAILAND

*Compiled under the Supervision of the
United States Board on Geographical Names*

DECEMBER 1944

1944

Gazetteer to Maps of Thailand

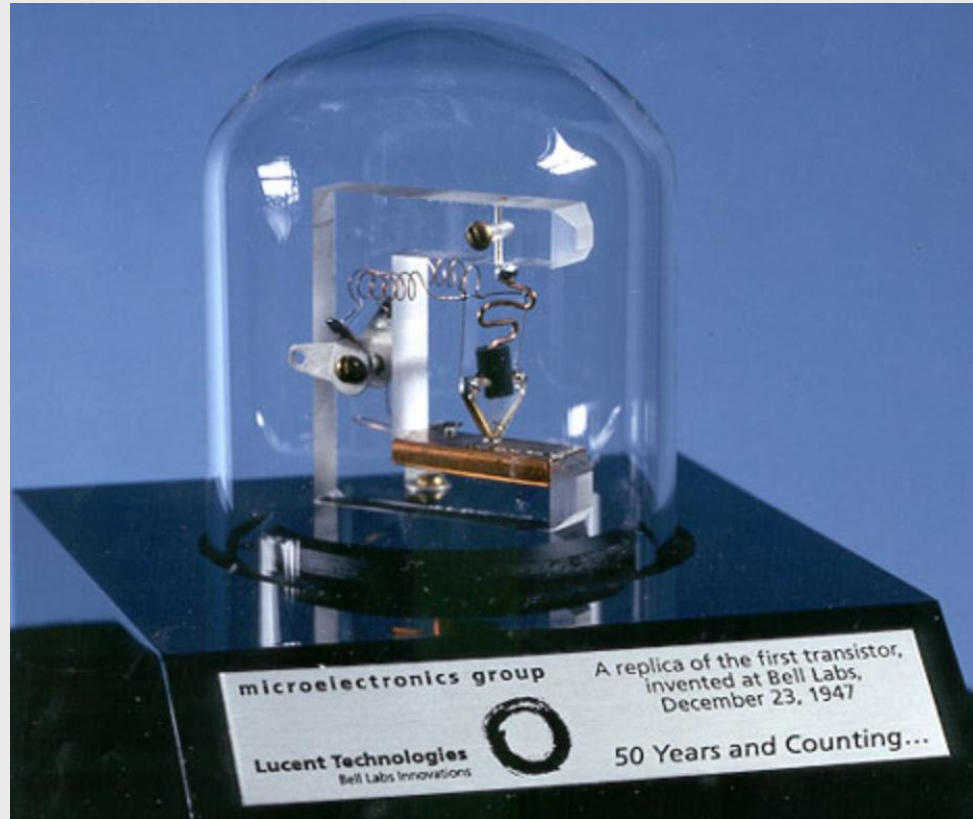
Table Style and Relations

<i>Name</i>	<i>Desig</i>	<i>Map Reference</i>	<i>Lat N</i>	<i>Long E</i>
AI SIPHO.....	S	RSD/B47-18	5 50	101 05
AI TIKA.....	S	RSD/B47-18	5 55	101 40
AI TIMUNG.....	S	RSD/B47-18	5 50	101 40
AI WAENG.....	S	RSD/B47-18	5 55	101 55
AI WENG.....	S	RSD/B47-18	5 55	101 05
AI YINYANG.....	S	RSD/B47-18	5 55	101 20
<i>Akat Amnuai (see B. Kha) ..</i>		SI/E48-O		
* <i>Alabaster Rks</i>	Rcks	BA/2414	12 20	102 00
* <i>Alabaster Rks</i>	Rocks	BA/2721	12 20	102 00
* <i>Alabaster Rks (see Hin Put)</i> ..		HO/3132		
* <i>Alang Jai</i>	I	BA/842	8 00	98 25
* <i>Alert Passage</i>	Chn	BA/842	6 35	99 15

Something happened between 1960-2000

- Internet/Web revolution
- Digital revolution

Transistor was invented 1947



October 29, 1969

@ 22:30

Internet was born

1970 – 1980
Relational
Databases were
born

Mosaic Browser 1993



1996



Acquired in 2000 by AOL by 1.1 billion

Open Geospatial Consortium (OGC)

- Created in 1994 – 8 Members
- From OpenGIS Project
- Interfaces for Open Geodata Interoperability
- 1997 OpenGIS Simple Features Specification
- 2000 Web Map Service 1.0
- 2002 Web Feature Services 1.0

2004

More people use maps
online than email

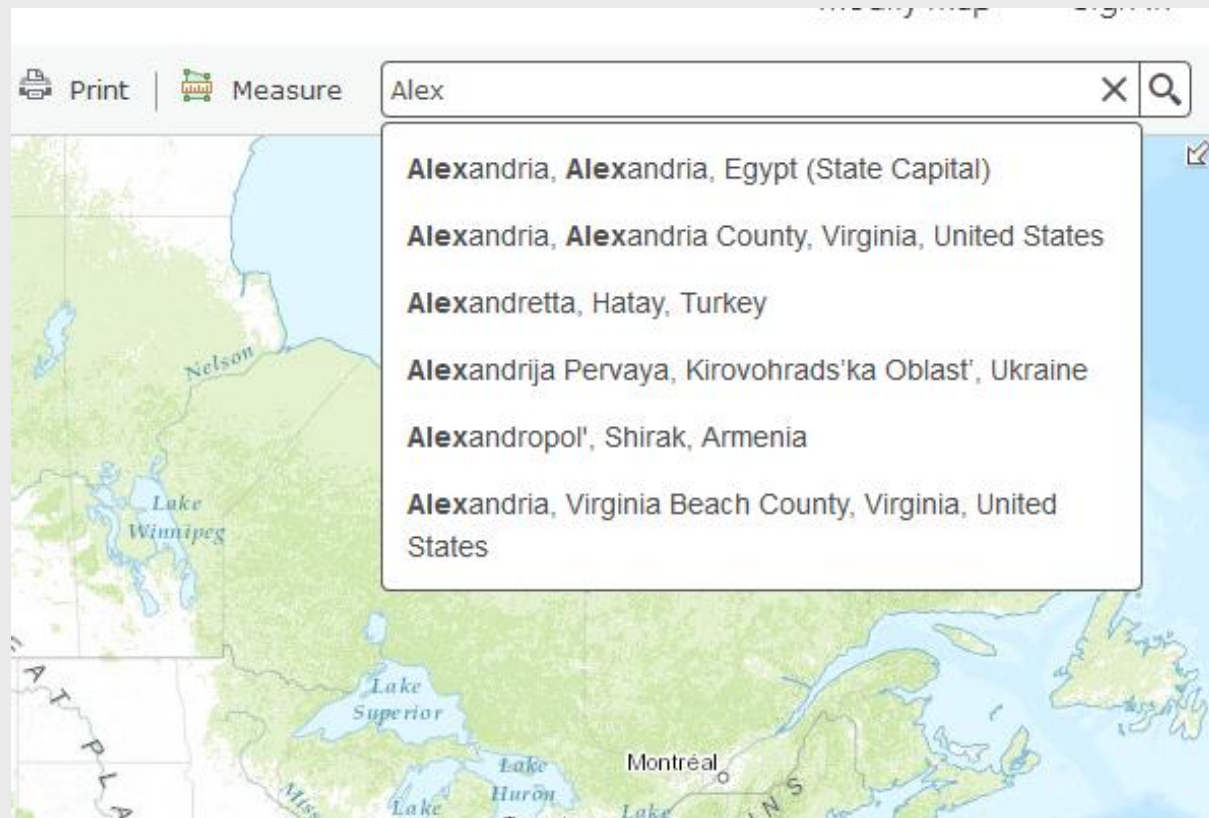
2007 - Maps in your pocket



Geographic Names Information System (GNIS) Web Services

- 2008 – First web service (XML and several input parameters and dynamically get elevation from National Elevation Dataset (NED))
- 2008 – OGC Web Map Service (WMS)
- 2010 – OGC Web Feature Service (WFS)
- 2010 – Prototype WFS-G

2015– Web Search Interface

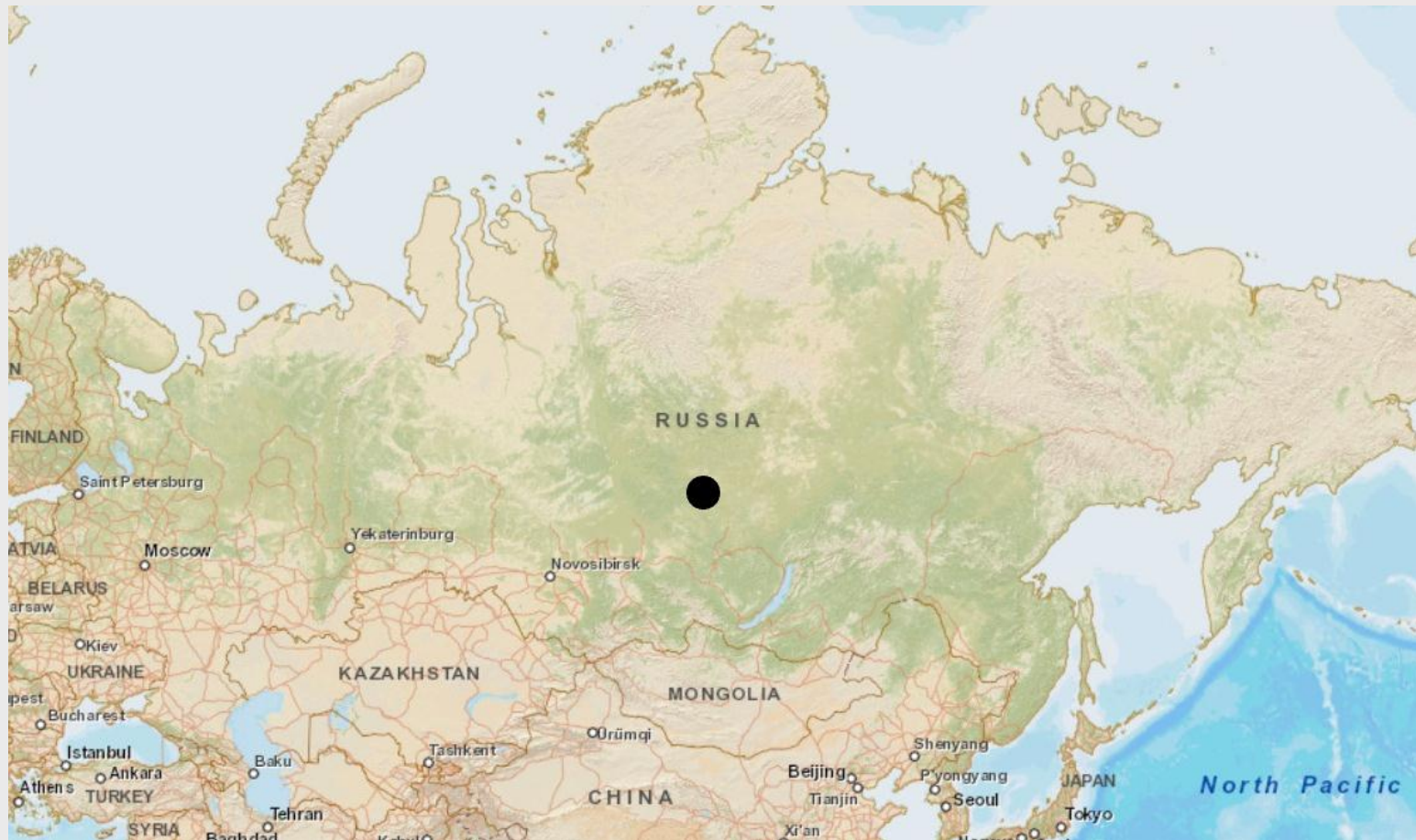


To Infinity and Beyond

- Advanced location representation
- Advanced semantics
- Advanced linking
- Advanced search

Where is Russia?

Look at the Point!

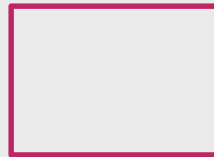


Advanced Representation

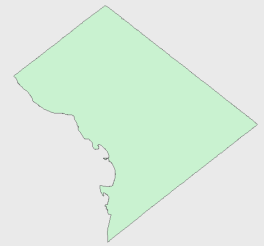
Point



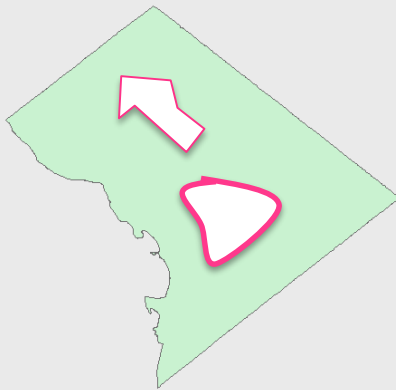
Bounding Box



Linear Ring



Polygon



Multi Polygons



Where is Russia?

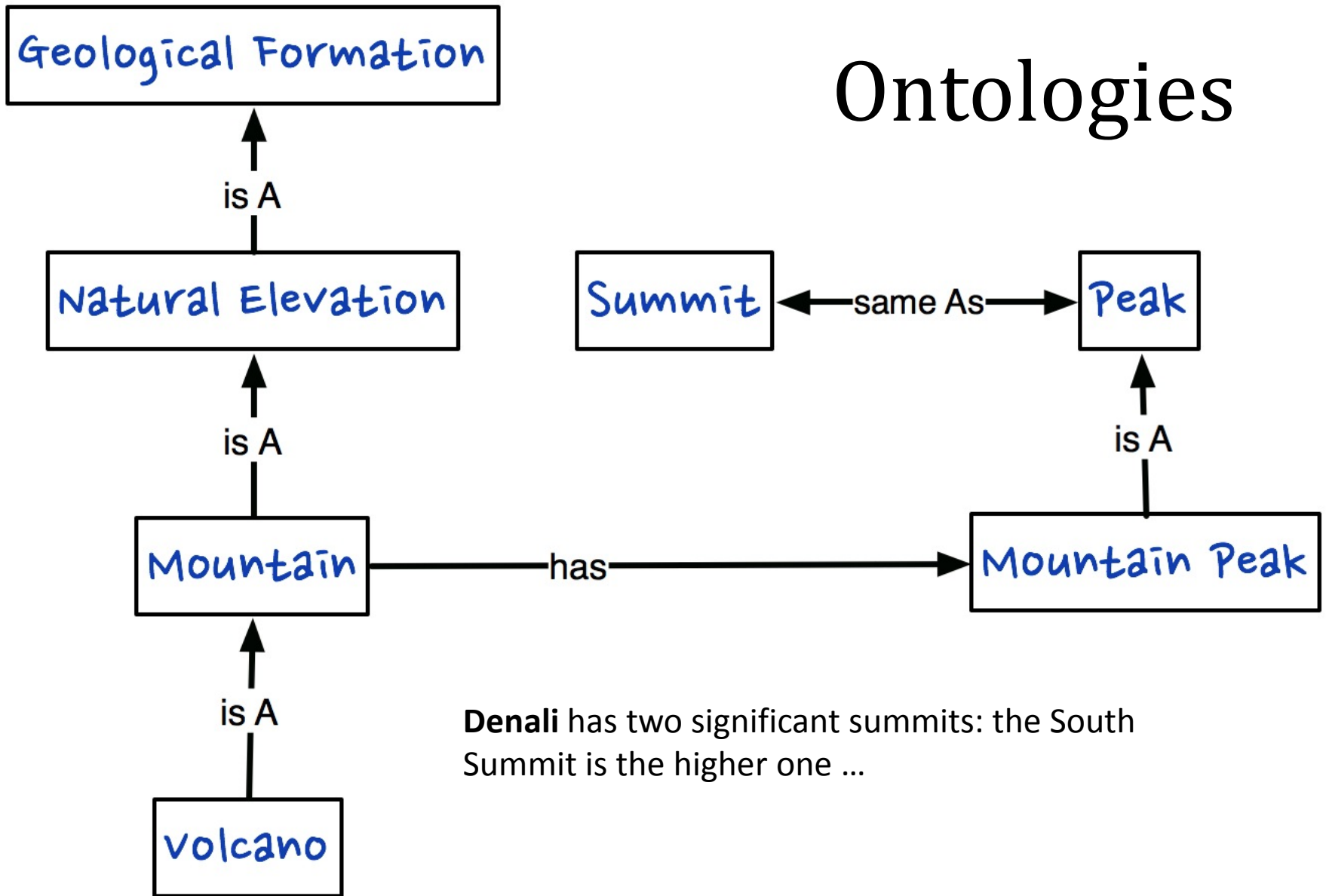


All these Polygons

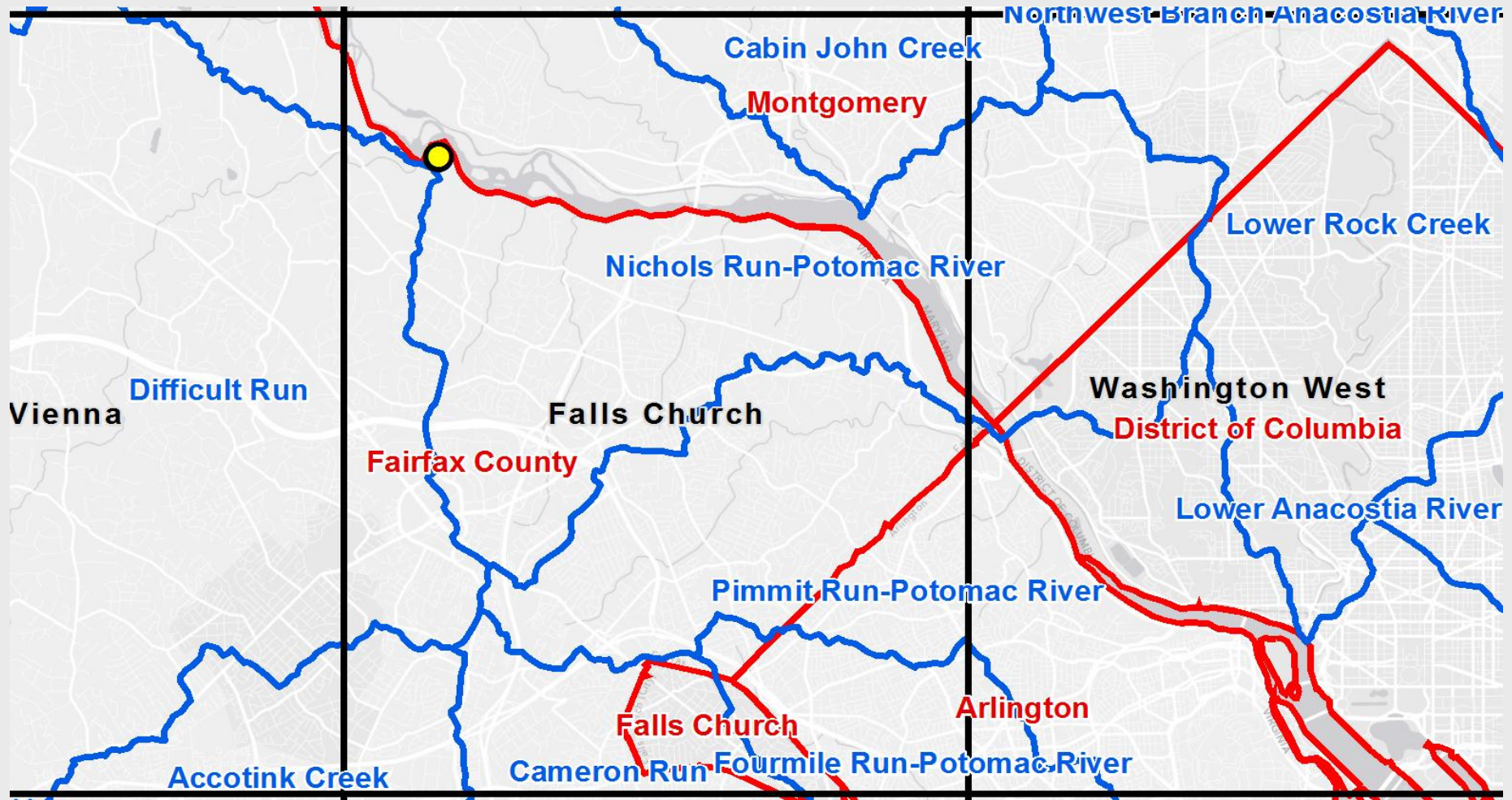
What is a Summit in the GNIS

- Butte
- Caldera
- Cone
- Hill
- Mountain
- Peak
- Volcano ...

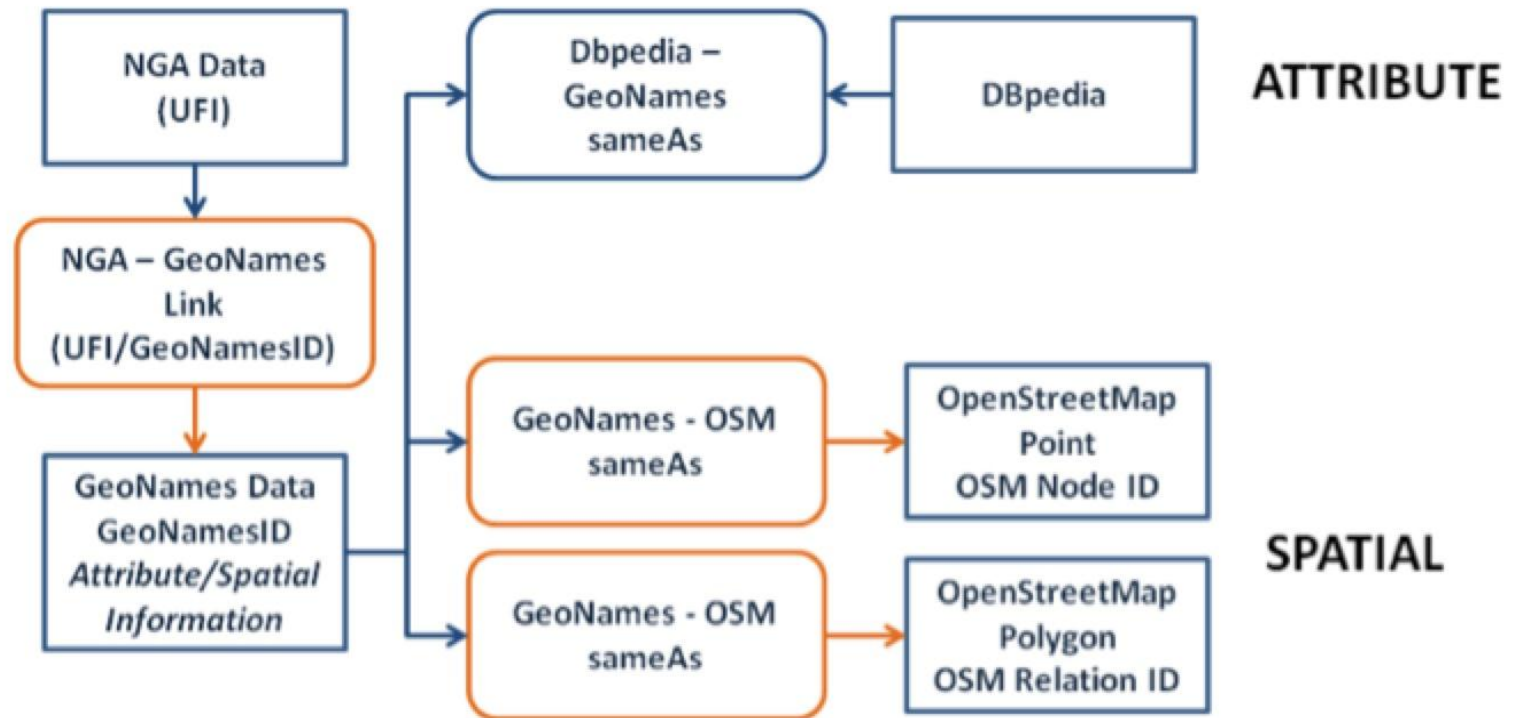
Ontologies



Inside What?



Advanced Linking



NGA UFI

-569498

GeoNames ID

<http://sws.geonames.org/6076211/>

Dbpedia Link

<http://live.dbpedia.org/page/Moncton>

OSM Point

<http://linkedgeodata.org/triplify/node204466183>

OSM Boundary

<http://linkedgeodata.org/page/triplify/relation1109568>

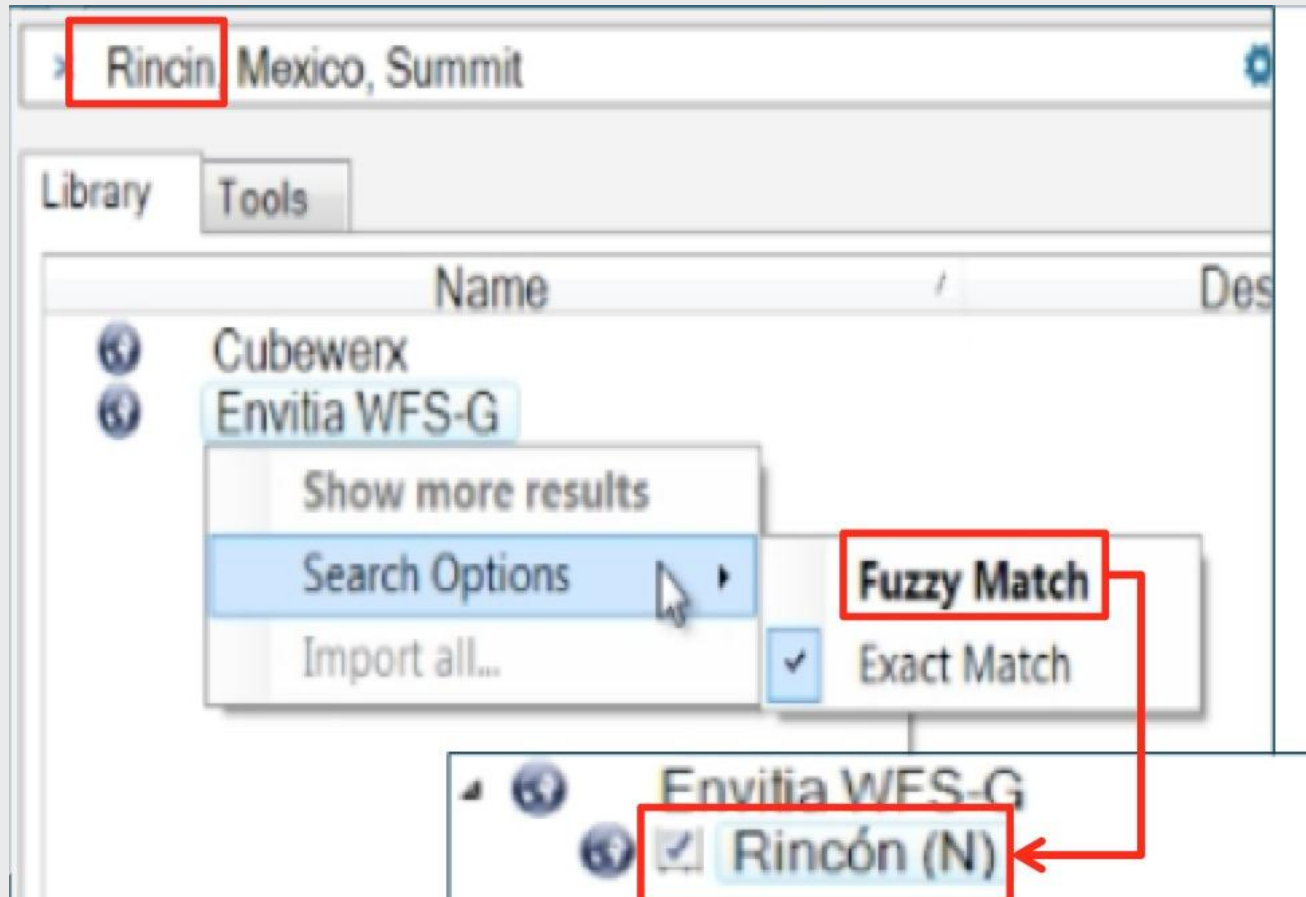
Get Additional Information from Other Sources

dbo:PopulatedPlace/populationMetroDensity 57.6

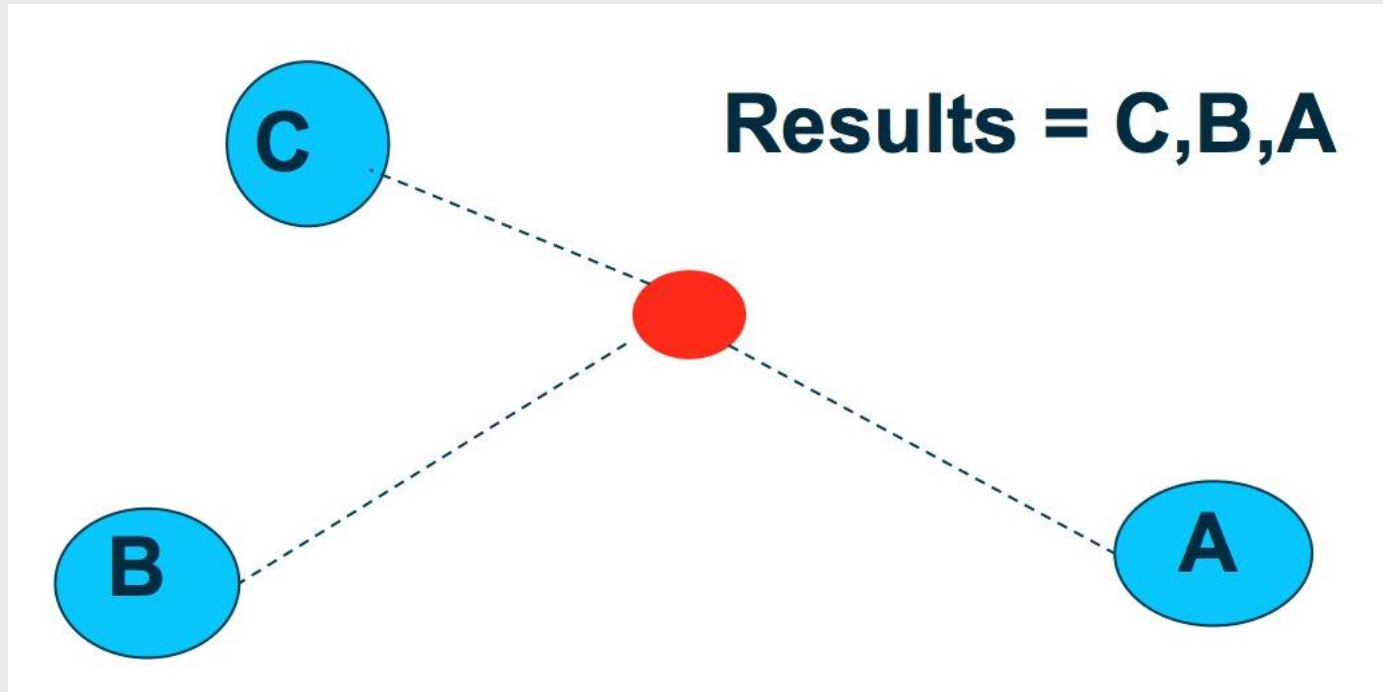
dbo:abstract is a Canadian city located in Westmorland County in southeastern New Brunswick. Situated in the Petitcodiac River Valley, it lies at the geographic centre of the Maritime Provinces. The city has gained the nickname "Hub City" because of its central location and also because Moncton has historically been the railway and land transportation hub for the Maritimes....

dbo:RainDays 12.3

Web Services Support for Advanced Search

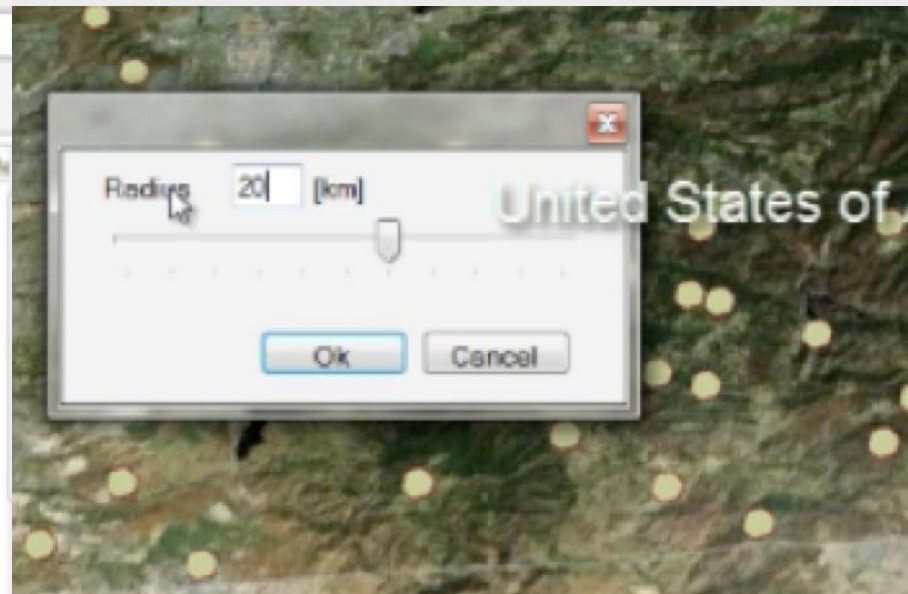
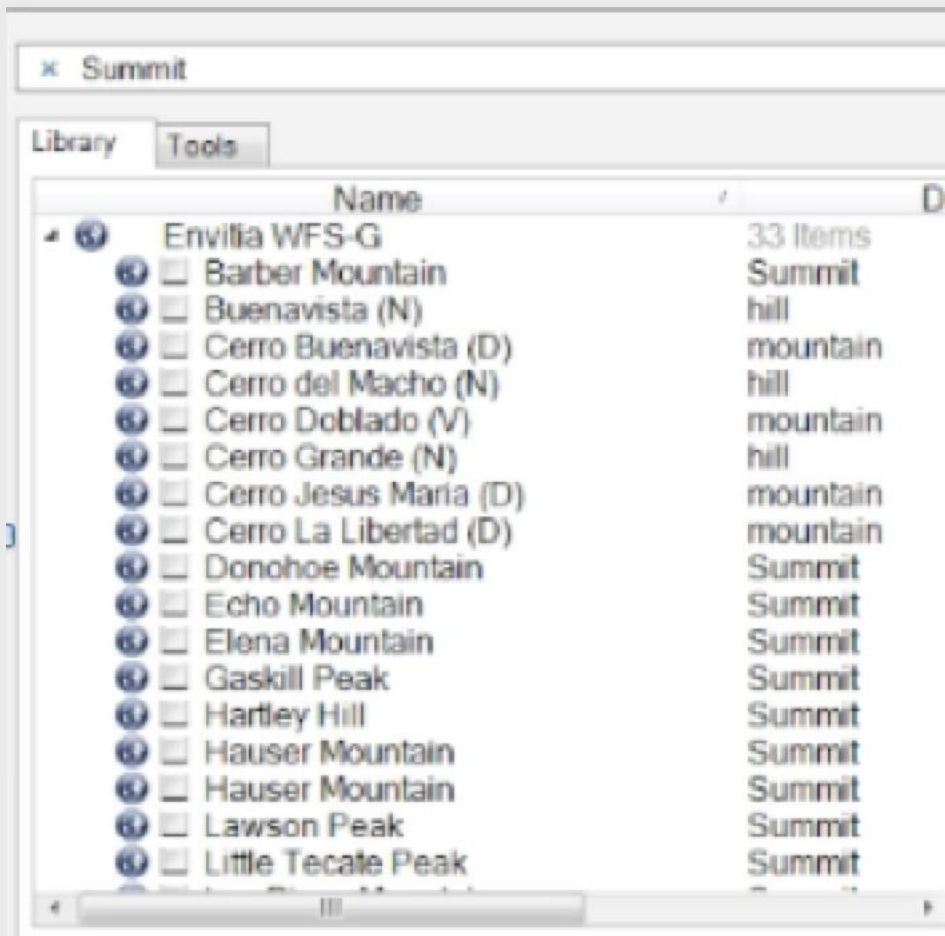


Web Services Support for Advanced Search

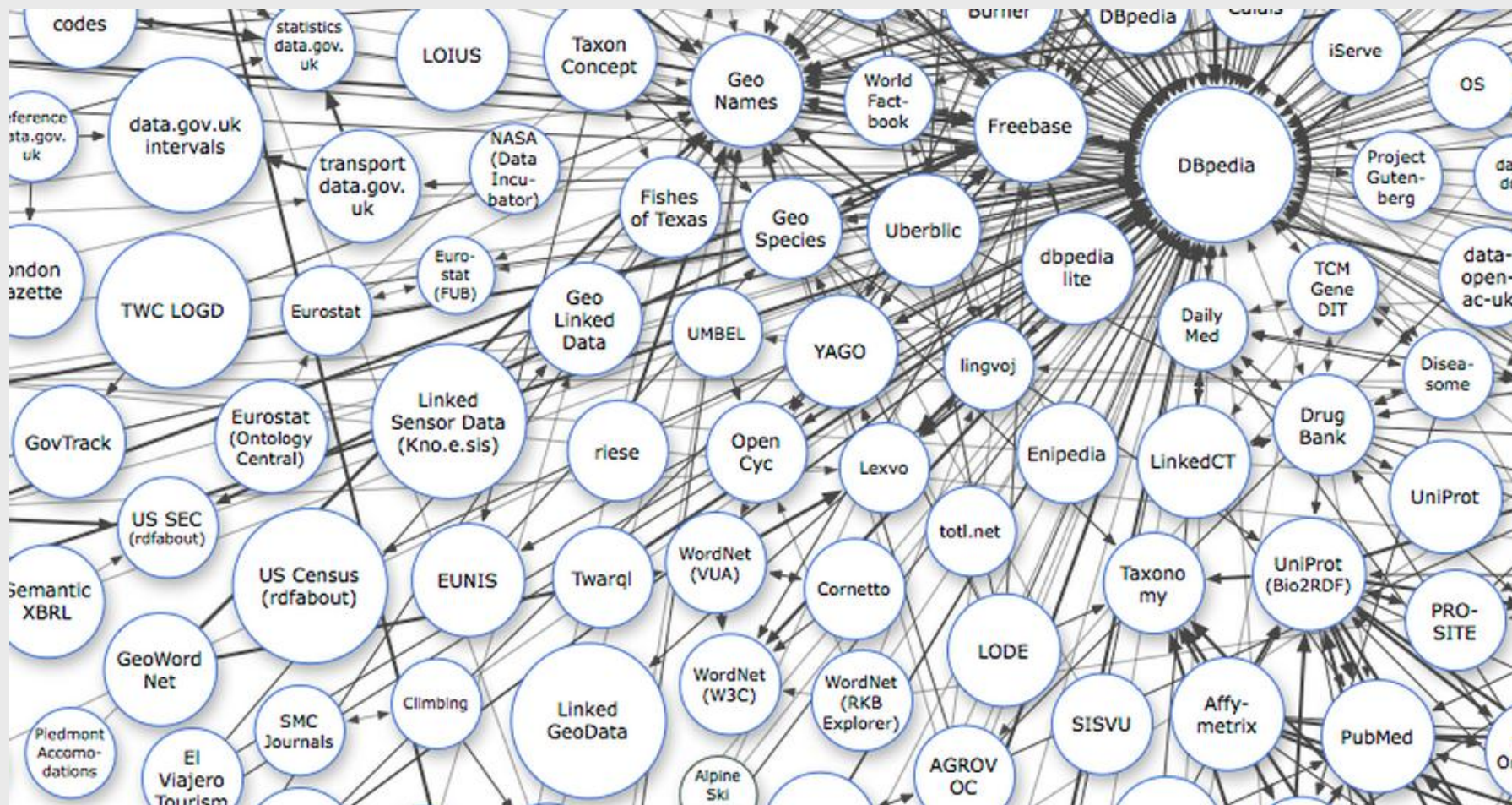


Nearest Neighbor

Web Services Support for Advanced Search



And Beyond ...



Thank you for your attention

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@berdez